



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,736	05/12/2005	Josep Montanya Silvestre	0070.1100	9052
21171 7590 10/16/2008 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER				
ROJAS, BERNARD				
ART UNIT		PAPER NUMBER		
2832				
MAIL DATE		DELIVERY MODE		
10/16/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/534,736

**Applicant(s)**

MONTANYA SILVESTRE, JOSEP

**Examiner**

BERNARD ROJAS

**Art Unit**

2832

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 38-74 is/are pending in the application.
- 4a) Of the above claim(s) 41-44 and 49-70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-40, 45 and 71-74 is/are rejected.
- 7) ☒ Claim(s) 47-48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Embodiment 2, claims 38, 39, 40, 45-48 and 71 in the reply filed on 08/28/2007 is acknowledged.

Claims 41-44 and 49-70 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08/28/2007.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language used to define the following claim limitation "wherein the closing of the electric circuit occurs even though the conductor element remains at a voltage in principle unknown". It is understood as per the Applicant's remarks [page 9] that the Applicants intends to claim that the voltage of the conductor does not affect the closing of the electric switch.

Claim 74 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It appears that claim 74 is incomplete as it terminates stating

"the movement of the conductive element depending on voltages present in the first and second condenser plates, and the conductive element being." For examination purposes, this will be interpreted as "the movement of the conductive element depending on voltages present in the first and second condenser plates, and not the conductive element voltage."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 38, 39, 40, 45, 46 and 71-74 are rejected under 35 U.S.C. 102(e) as being anticipated by Deligianni et al. [US 6,917,268].

Claim 38, Deligianni et al. discloses a miniaturized relay [100, figures 1 and 2] comprising: a first condenser plate [V1]; a second condenser plate [V2] facing said first condenser plate, in which said second plate is smaller than or equal to said first plate; an intermediate space [figures 1 and 2]; a conductive element [7, 8] arranged in said intermediate space, said conductive element being a detached part [6] for movement freely along the intermediate space [denoted by the arrows adjacent to 7 and 8] between a first end of said intermediate space, defining a first zone [left, 6 moves to

close contact C1], and a second end of said intermediate space, defining a second zone [right, 6 moves to close contact C2], said movement depending on voltages present in said first and second condenser plates [col. 2 lines 65 to col. 3 line 9 and col. 4 lines 9-12], where said first condenser plate is arranged in said first zone [left] and said second condenser plate is arranged in said second zone [right]; a third condenser plate [V4] arranged in said second zone [right], in which said third condenser plate is smaller than or equal to said first condenser plate, and in which said second and third condenser plates are, together, larger than said first condenser plate [figure 2]; and a first contact point of an electric circuit [2, RF out contact], a second contact point of said electric circuit [RF in contact point right], in which said first and second contact points define first stops, wherein, when said element contacts said first stops said conductive element closes said electric circuit [col. 4 lines 9-12], and wherein a closing of the electric circuit occurs even though the conductive element remains at a voltage in principle unknown, which will be forced by the electric circuit that is closed [the electrical circuit is closed when voltages are applied to the various electrodes V—V3 regardless of the voltage in the conductive element 7, col. 2 lines 65 to col. 3 line 9 and col. 4 lines 9-12].

Claim 71, Deligianni et al. discloses the relay according to claim 38, further comprising a substrate [S] that defines, with the first, second and third condenser plates and the first stops, the intermediate space, and conductive element's movement is in a substantially direction perpendicular to the substrate [figure 1c, 9 holds 6 above the substrate].

Claim 39, Deligianni et al. discloses the according to claim 71, wherein said first contact point [2, RF out] is in said second zone [right].

Claim 40, Deligianni et al. discloses the according to claim 39, wherein said second contact point [RF signal in right] is in said second zone [right].

Claim 45, Deligianni et al. discloses the according to claim 71, further comprising: a second stop [1, Rf out and Rf signal in left] in said first zone [left].

Claim 72, Deligianni et al. discloses the according to claim 38, the closing of the electric circuit occurring even though the conductive element remains at a voltage in principle unknown [the electrical circuit is closed when voltages are applied to the various electrodes V—V3 regardless of the voltage in the conductive element 7, col. 2 lines 65 to col. 3 line 9 and col. 4 lines 9-12] since said conductive element being not in electrical contact with its surroundings when moving across said intermediate space [figures 1 and 2].

Claim 73, Deligianni et al. discloses the relay according to claim 72, the conductive element [7, 8] being not in electrical contact with walls that define said intermediate space when moving across said intermediate space [figure 1 and 2].

Claim 46, Deligianni et al. discloses a miniaturized relay [100, figures 1 and 2] comprising: a first condenser plate [V1]; a second condenser plate [V2] facing said first condenser plate, in which said second plate is smaller than or equal to said first plate [figures 1 and 2]; an intermediate space [figures 1 and 2]; a conductive element [7, 8] arranged in said intermediate space, said conductive element being a detached part [6] for movement freely along the intermediate space between a first end of said

intermediate space, defining a first zone [left], and a second end of said intermediate space, defining a second zone [right], said movement depending on voltages present in said first and second condenser plates [col. 2 lines 65 to col. 3 line 9 and col. 4 lines 9-12], where said first condenser plate [V1] is arranged in said first zone [left] and said second condenser plate [V2] is arranged in said second zone [right]; a third condenser plate [V4] arranged in said second zone [right], in which said third condenser plate is smaller than or equal to said first condenser plate [figures 1 and 2], and in which said second and third condenser plates are, together, larger than said first condenser plate [figures 1 and 2]; a first contact point [2, Rf out] of an electric circuit, a second contact point [Rf signal in right] of said electric circuit, in which said first and second contact points define first stops, and upon said element [C2] contacting said first stops said conductive element closes said electric circuit; a substrate [S] that defines, with the first, second and third condenser plates and the first stops, the intermediate space, and conductive element's movement is in a substantially direction perpendicular to the substrate [figure 1c]; and a third contact point [1, Rf out and Rf signal in left] arranged in said first zone [left], in which said third contact point defines a second stop, such that said conductive element closes a second electric circuit [C1 circuit] when in contact with said second contact point and said third contact point.

Claim 74, Deligianni et al. discloses a miniaturized relay comprising: a first condenser plate [V1] in a first zone [left]; a second condenser plate [V2] and a third condenser plate [V4] in a second zone [right]; and a conductive element [7, 8] capable of freely moving along an intermediate space [as denoted by the arrows, figure 1]

between a first end of said intermediate space and defining the first zone [left] and a second end of said intermediate space defining the second zone [right] and not in electrical contact with walls that define the intermediate space when moving [figures 1 and 2], the movement of the conductive element depending on voltages present in the first and second condenser plates, and not the conductive element voltage[col. 2 lines 65 to col. 3 line 9 and col. 4 lines 9-12].

#### ***Allowable Subject Matter***

Claims 47 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 38, 39, 40, 45, 46 and 71 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BERNARD ROJAS whose telephone number is (571)272-1998. The examiner can normally be reached on M and W-F, 5:30-3:00.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elvin G Enad/  
Supervisory Patent Examiner, Art Unit 2832

Br  
/Bernard Rojas/  
Examiner, Art Unit 2832